



MR GIUSEPPE SFORZA
CONSULTANT ORTHOPAEDIC SURGEON



Frozen Shoulder

Manipulation under Anaesthetic (MUA) for release of shoulder contracture with/without Arthroscopic release and Injection of Steroid

Frozen shoulder (sometimes called adhesive capsulitis of the shoulder) is a condition where a shoulder becomes painful and stiff. Shoulder movements become reduced, sometimes completely 'frozen'. It is thought to be due to tightening of the shoulder capsule (the inner lining of the joint). The cause is usually unknown, however it is more common in diabetic patients and in patients with Dupuytren's contracture or thyroid disorders. Without treatment, symptoms will usually settle in 75% of the cases, but this may take up to 2-3 years or longer in diabetic patients.

The treatment options are:

1. Conservative treatment i.e., waiting for 2-3 years with pain relief treatment
2. Surgical treatment with Manipulation under Anaesthetic (MUA) with or without capsular release of shoulder contracture and Injection of Steroid
3. Arthroscopic capsular release of the shoulder

What are the symptoms of frozen shoulder?

The typical symptoms are pain, stiffness, and limitation in the range of movement of a shoulder. The symptoms typically have three phases:

- Phase one - the 'freezing', painful phase. This typically lasts 2-6 months. The first symptom is usually pain. Stiffness and limitation in movement then also gradually build up. The pain is typically worse at night and when you lie on the affected side. In this phase frozen shoulder can mimic any shoulder pathologies.
- Phase two - the 'frozen', stiff (or adhesive) phase. This typically lasts 6-12 months. Pain gradually eases but stiffness and limitation in movement remain and can get worse. All movements of the shoulder are affected. However, the movement most severely affected is usually rotation of the arm outwards. The muscles around the shoulder may waste a bit as they are not used.
- Phase three - the 'thawing', recovery phase. This typically lasts between one and three years. The pain and stiffness gradually go and movement gradually returns to normal, or near normal.

Symptoms often interfere with everyday tasks such as driving, dressing, or sleeping. Even scratching your back, or putting your hand in a rear pocket, may become impossible. Work may be affected in some cases.

There is great variation in the severity and length of symptoms. Untreated, on average the symptoms last 2-3 years in total before going. In some cases, it is much less than this. In a minority of cases, symptoms last for several years.

Diabetic patients can be more prone to getting a frozen shoulder and may be generally more resistant to treatment and have persistent pain that could last up to 1 year even after surgery.

What causes frozen shoulder?

The cause is not clear. It is thought that some scar tissue forms in the shoulder capsule. The capsule is a thin tissue that lines the inside of the shoulder joint. This scar tissue may cause the capsule to thicken, contract and limit the movement of the shoulder. The reason for the development of this disorder is not known.

The Operation

The aim of the manipulation under anaesthetics is to reduce the recovery time from 2-3 years to few weeks. The manipulation is performed by the surgeon in a controlled manner in order to “tear” the thickened capsule and gain full range of movement. This is combined with an injection of local anaesthetic and steroid to reduce inflammation and pain. There may be need to proceed and perform further arthroscopic release of the contracture, if the manipulation is not successful or if the surgeon choose to proceed with surgical treatment instead of manipulation under anesthetic. This operation is done by keyhole surgery; usually through two to four 4mm puncture wounds. It involves examination of the shoulder joint using a tiny telescope with television camera introduced through a keyhole. It involves cutting of the tight (contracted) tissues in the shoulder with a special electro-cutting/radiofrequency device to release the contracture. During arthroscopy could be performed a subacromial decompression and/or an Acromioclavicular joint excision to address concomitant pathologies.

Anaesthetics

The operation is performed under general anaesthetic and a nerve block (injection in your neck or upper chest) that will make your arm feel numb for 8-48 hours after surgery. This is to allow you to mobilise your shoulder immediately after surgery without pain. When this wears off, the shoulder may well be sore and you will be given painkillers to relieve the pain.

General Advice

You will usually only be in hospital for a day. A doctor / physiotherapist will see you before you go home.

You will be given exercises to do immediately after the procedure. These exercises are an essential part of your recovery.

Outpatient physiotherapy should be arranged within 48 hours from the procedure. This could be organised before you are admitted to hospital.

It is essential that you attend regular physiotherapy in the first few weeks following your procedure.

Please ensure that your employers are aware of this commitment.

You will be given a sling. This is provided purely to keep your arm comfortable. It may be taken off as much as you wish and discarded as soon as possible. You will be encouraged to use your arm. Your symptoms should be approximately 80% better after three months but may take a year to totally settle.

Complications

As with all surgery there is a risk of some complications. These are rare, but you should be aware of them before your operation.

They include:

- **Complications relating to the anaesthetic.**
- **Infection.**
- **Injury to the nerves or blood vessels** around the shoulder. Sometimes, the nerves become irritable resulting in pain and stiffness in the upper limb, **a condition called complex regional pain syndrome (CRPS).**
- **Fracture:** The upper arm bone (humerus, scapular blade) breaking. This is extremely rare.
- **Failure of the operation** in improving pain or movement in your shoulder.
- **Prolonged stiffness** and or **pain.**
- A need to **redo** the surgery.

If you require further information please discuss with the doctors either in clinic or on admission.

What to expect after surgery.

Pain

The shoulder will be sore when the nerve block wears off and this may last for the first few weeks. It is important that you continue to take the painkillers prescribed in hospital. Ice packs may also help reduce pain. Wrap frozen peas / crushed ice in a damp, cold towel and place on the shoulder for up to 15 minutes.

Movement

It is of the utmost importance that you begin moving and exercising the arm on the day of the procedure. The sling should be discarded as soon as possible. Adequate pain relief will enable you to perform the exercises demonstrated by the physiotherapist. Try to use the arm for normal daytime activities where possible.

The Wound:

If the keyhole operation is necessary, it is usually done through two or four 4mm puncture wounds. There will be no stitches only small sticking plaster strips over the wounds. These should be kept dry until healed. This usually takes 5 to 7 days.

Driving:

You may drive **within** one week.

Returning to work:

If you have a desk job you will probably be able to return after one week. You may need slightly longer if your job involves lifting or manual work. You will be given 3 weeks leave to allow you to do your physiotherapy.

Leisure activities:

These will depend on the range of movement and strength in your shoulder. It is possible to do most things as long as your shoulder feels comfortable. Please discuss specific activities with your physiotherapist.

Follow up appointments:

You will have a follow up appointment at The Shoulder Unit about three weeks following your procedure. You will be reviewed by the specialist physiotherapist / surgeon who will check your progress.

Progress:

This is variable. In the first few weeks your shoulder will be sore although your movements will improve. Do not be surprised if the soreness affects your daily activities. You should continue to move and use your arm normally. Over the weeks following your surgery you will notice a gradual improvement in movement and pain.

It is expected to achieve about 75-80% of improvement at 3 months after surgery and this continues to improve over the first year.

Exercises:

You may well be expected to perform the following exercises. Your physiotherapist will teach you the following exercises before you leave hospital, if appropriate:

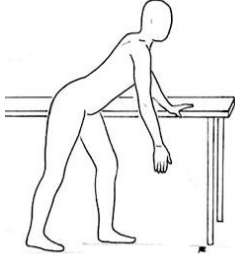
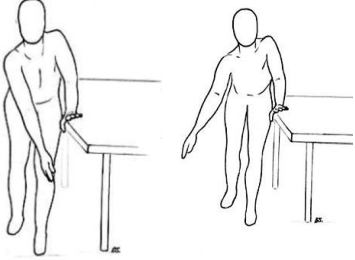
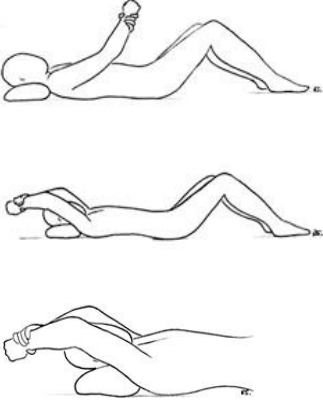
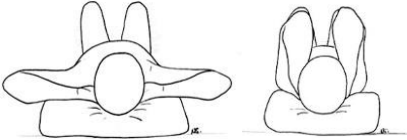

- 1) With your arm in the sling move your hand up and down at the wrist.
- 2) With your arm out of the sling bend and straighten the elbow
- 3) With your arm in the sling and the elbow bent at your side, turn the hand to face the ceiling and then the ground.





Repeat these exercises 3 times per day. The number you should perform at each session will be recorded for you by your physiotherapist.

Continue these exercises until otherwise advised by your physiotherapist.

Please find enclosed some some exercises you can adopt in the immediate postop phase.

It is quite normal for you to experience aching, discomfort and stretching when doing the exercises but decrease the exercises if you experience intense or lasting pain.

	<p>Stand. Lean forwards. Let your arm hang down. Swing your arm forwards and backwards. Repeat 10 times. (Shown for the right shoulder).</p>
	<p>Stand. Lean forwards. Let your arm hang down. Circle your arm clockwise & anti-clockwise. Repeat 10 times. (Shown for right shoulder).</p>
	<p>Lying on your back. Support your operated arm with the other arm and lift it up overhead. Repeat 10 times. (Shown for right shoulder)</p>
	<p>Lying or sitting. Put your hands behind your head, and gently stretch the elbows towards the floor/ backwards to feel a gentle stretch on the front of your shoulders. Repeat 5 times.</p>
	<p>Take your affected arm across your body to rest the hand on the opposite shoulder. Grasp the elbow with your good hand and gently stretch the arm across your body. Repeat 5 times.</p>

	<p>Standing with your arms behind your back. Grasp the wrist of your operated arm and gently stretch the hand on your affected arm towards the opposite buttock. Then slide your hands up your back. Repeat 5 times</p>
	<p>Lying on your back. Grasp a stick in both your hands. Lift the stick up and gently take overhead until you feel a gentle stretch in your shoulder. Repeat 10 times.</p>
	<p>Lying on your back, keeping the elbow to your side. Hold a stick in your hands. Move the stick sideways, gently pushing the hand on your operated arm outwards. Repeat 5 times</p>
	<p>Standing with your arms behind your back and grasp a stick between them. Gently lift the stick up away from your body. Repeat 5 times</p>

If your wound changes in appearance, weeps fluid or pus or you feel unwell with a high temperature, contact your GP.

If you have a query concerning your exercises contact the physiotherapy department where you are receiving treatment.

To book a consultation or an appointment with Mr Giuseppe Sforza please get in touch:

<http://www.giuseppesforza.com/appointments/>

<http://www.giuseppesforza.com/practice-locations/uk/>